Carestream

MATERIAL SAFETY DATA SHEET

Issuing date no data available **Revision Date** 2014-06-18 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product code: 2319224

Product name: FAC-3218

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product Use: Restricted to professional users. Photographic chemical.
Uses advised against No information available

1.3 Details of the supplier of the safety data sheet

Supplier: Carestream Health UK Ltd., 1 Park Lane, Hemel Hempstead, Hertfordshire, HP2 4YG

For further information, please contact:

Product Information +44 (0)870 6000245
E-mail Address For environment, health and safety information, email: EMEAEHS@carestream.com

1.4 Emergency telephone number

Emergency telephone CHEMTREC International 1-703-527-3887

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Classification according to EU Directives 67/548/EEC or 1999/45/EC
For the full text of the R-phrases mentioned in this Section, see Section 16

Symbol(s)
Xi - Irritant

R-code(s)
R10 - Xi;R41 - R67

2.2 Label elements

Danger

Contains n-Propyl alcohol

hazard statements

H318 - Causes serious eye damage
H336 - May cause drowsiness or dizziness
H226 - Flammable liquid and vapor

Precautionary Statements - EU (§28, 1272/2008)

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P280 - Wear eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor/ physician
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

2.3 Other information

Unknown acute toxicity 6.48% of the mixture consists of ingredient(s) of unknown toxicity
Environmental properties None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2. Mixtures

Hazardous

Chemical Name	EC-No	**CAS-No**	**Weight %**	Classification (67/548)	**Classification according to Regulation (EC) No. 1272/2008 [CLP]**	REACH Registration Number
n-Propyl alcohol	Present	71-23-8	10-20	F; R11 Xi; R41 R67	Eye Dam. 1 (H318) STOT SE 3 (H336) Flam. Liq. 2 (H225)	no data available

1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulfonyl]amino]-, inner salt	Present	34455-29-3	1-10	-	no data available	no data available
Ethyl alcohol	Present	64-17-5	1-10	F; R11	Flam. Liq. 2 (H225)	no data available

Non-Hazardous

Chemical Name	EC-No	**CAS-No**	**Weight %**	Classification (67/548)	**Classification according to Regulation (EC) No. 1272/2008 [CLP]**	REACH Registration Number
Water	Present	7732-18-5	60-80	-	no data available	no data available

For the full text of the R-phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin contact Wash skin with soap and water.

Ingestion Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

Inhalation Move victim to fresh air. Apply artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.

Protection of First-aiders Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

4.2 Most important symptoms and effects, both acute and delayed

Main Symptoms Irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Keep victim warm and quiet. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media
Dry chemical,CO_2 , water spray or alcohol-resistant foam. Move containers from fire area if you can do it without risk. Dike fire control water for later disposal; do not scatter the material. Use water spray or fog; do not use straight streams.

Extinguishing media which shall not be used for safety reasons
No information available

5.2 Special hazards arising from the substance or mixture

Special Hazard
Vapors may form explosive mixture with air. Vapors may travel to source of ignition and flash back.

5.3 Advice for fire-fighters

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Full encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Stop leak if you can do it without risk.

Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Try to prevent the material from entering drains or water courses. Recover the product in solid form, if possible.

6.3 Methods and material for containment and cleaning up

Dike to collect large liquid spills. Prevent further leakage or spillage if safe to do so.

Dam up. Soak up with inert absorbent material. Use clean non-sparking tools to collect absorbed material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling	Wear personal protective equipment. Use only in area provided with appropriate exhaust ventilation. Prevent the formation of vapors, mists and aerosols.
Prevention of fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Ground/bond container and receiving equipment. Take precautionary measures against static charges.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place. Keep in properly labeled containers.
Materials to Avoid	Strong oxidizing agents.

7.3 Specific end uses

Exposure scenario No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Exposure limits

Chemical Name	European Union	The United Kingdom	France	Spain	Germany
n-Propyl alcohol 71-23-8		STEL 250 ppm STEL 625 mg/m³ TWA 200 ppm TWA 500 mg/m³ Skin	TWA 200 ppm TWA 500 mg/m³	TWA 200 ppm TWA 500 mg/m³ STEL 400 ppm STEL 1000 mg/m³ S*	
Ethyl alcohol 64-17-5		STEL 3000 ppm STEL 5760 mg/m³ TWA 1000 ppm TWA 1920 mg/m³	TWA 1000 ppm TWA 1900 mg/m³ STEL 5000 ppm STEL 9500 mg/m³	STEL 1000 ppm STEL 1910 mg/m³	AGW 500 ppm AGW 960 mg/m³
Chemical Name	**Italy**	**Portugal**	**The Netherlands**	**Finland**	**Denmark**
n-Propyl alcohol 71-23-8		TWA 200 ppm STEL 400 ppm C(A3)		TWA 200 ppm TWA 500 mg/m³ STEL 250 ppm STEL 620 mg/m³	TWA 200 ppm TWA 500 mg/m³ H*
Ethyl alcohol 64-17-5		TWA 1000 ppm C(A4)	Huid* STEL 1900 mg/m³ TWA 260 mg/m³	TWA 1000 ppm TWA 1900 mg/m³ STEL 1300 ppm STEL 2500 mg/m³	TWA 1000 ppm TWA 1900 mg/m³
Chemical Name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
n-Propyl alcohol 71-23-8	TWA 200 ppm TWA 500 mg/m³	H* TWA 200 ppm TWA 500 mg/m³	TWA 200 mg/m³ STEL 600 mg/m³	TWA 100 ppm TWA 245 mg/m³ S* STEL 150 ppm STEL 306.25 mg/m³	TWA 100 ppm Skin
Ethyl alcohol 64-17-5	STEL 2000 ppm STEL 3800 mg/m³ TWA 1000 ppm TWA 1900 mg/m³	SS-C** TWA 500 ppm TWA 960 mg/m³ STEL 1000 ppm STEL 1920 mg/m³	TWA 1900 mg/m³	TWA 500 ppm TWA 950 mg/m³ STEL 625 ppm STEL 1187.5 mg/m³	STEL 1000 ppm
Chemical Name	**Sweden**	**Greece**	**Belgium**	**Hungary**	**Czech Republic**
n-Propyl alcohol 71-23-8	LLV 150 ppm LLV 350 mg/m³ STV 250 ppm STV 600 mg/m³	TWA 200 ppm TWA 500 mg/m³ STEL 250 ppm STEL 625 mg/m³	TWA 100 ppm TWA 250 mg/m³		TWA 500 mg/m³ Ceiling 1000 mg/m³ S*
Ethyl alcohol 64-17-5	LLV 500 ppm LLV 1000 mg/m³ STV 1000 ppm STV 1900 mg/m³	TWA 1000 ppm TWA 1900 mg/m³	TWA 1000 ppm TWA 1907 mg/m³	STEL 7600mg/m³ TWA 1900mg/m³	TWA 1000 mg/m³ Ceiling 3000 mg/m³
Chemical Name	**Luxembourg**	**Russia**	**Estonia**	**Latvia**	**Slovenia**
n-Propyl alcohol 71-23-8		STEL 30 mg/m³ TWA 10 mg/m³	STEL 250 ppm STEL 600 mg/m³ TWA 150 ppm TWA 350 mg/m³	TWA 10 mg/m³	
Ethyl alcohol 64-17-5		STEL 2000 mg/m³ TWA 1000 mg/m³	STEL 1000 ppm STEL 1900 mg/m³ TWA 500 ppm TWA 1000 mg/m³	TWA 1000 mg/m³	STEL 4000 ppm STEL 7600 mg/m³ TWA 1000 ppm TWA 1900 mg/m³
Chemical Name	**Slovakia**	**Croatia**	**Turkey**	**Romania**	**Bulgaria**

n-Propyl alcohol 71-23-8		S* STEL 250 ppm STEL 625 mg/m³ TWA 200 ppm TWA 500 mg/m³		STEL 203 ppm STEL 500 mg/m³ TWA 81 ppm TWA 200 mg/m³	STEL 500.0 mg/m³ TWA 300.0 mg/m³
Ethyl alcohol 64-17-5	Ceiling 1920 mg/m³ TWA 500 ppm TWA 960 mg/m³	TWA 1000 ppm TWA 1900 mg/m³		STEL 5000 ppm STEL 9500 mg/m³ TWA 1000 ppm TWA 1900 mg/m³	TWA 1000 mg/m³
Chemical Name	**Lithuania**	**European Union**	**The United Kingdom**	**France**	**Spain**
Ethyl alcohol 64-17-5	TWA 500 ppm TWA 1000 mg/m³ STEL 1000 ppm STEL 1900 mg/m³				

Biological occupational exposure limits
No information available

Derived No Effect Level No information available
Predicted No Effect Concentration (PNEC) No information available

8.2 Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

General Information These recommendations apply to the product as supplied.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Eye Protection Tightly fitting safety goggles.

Skin and body protection Long sleeved clothing. Apron. Impervious gloves.

Hand Protection Protective gloves.

Hygiene measures When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Provide regular cleaning of equipment, work area and clothing.

Environmental Exposure Controls Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state liquid
Color No information available
Odor No information available
Odor Threshold No information available

Property	**Values**	**Remarks/ - Method**
ph		No information available
Melting point/range:		No information available
Freezing Point:		No information available
Boiling point/boiling range		No information available
Flash point:	23 - 37 °C	No information available

Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		No information available
upper flammability limit	No information available	
lower flammability limit	No information available	
Vapor pressure		No information available
Vapor density		No information available
Specific Gravity		No information available
Relative density		No information available
Water Solubility		No information available
Solubility in other solvents		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity:		No information available
Explosive properties	No information available	
Oxidizing Properties	No information available	

9.2 Other information

Bulk Density: No information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

To avoid thermal decomposition, do not overheat.

10.5 Incompatible Materials

Strong oxidizing agents.

10.6 Hazardous Decomposition Products

Hydrogen fluoride.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Inhalation Inhalation of vapors in high concentration may cause irritation of respiratory system. May cause drownsiness and dizziness based on components.

Eye contact Expected to be severely irritating or corrosive based on components present in the formulation. Vapor may cause irritation.

Skin contact Prolonged contact may cause redness and irritation.

Ingestion May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Unknown acute toxicity 6.48% of the mixture consists of ingredient(s) of unknown toxicity

Acute toxicity - Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water	90,000 mg/kg (Rat)		
n-Propyl alcohol	1870 mg/kg (Rat) Oral LD50 Rat 1870 mg/kg (Source: IUCLID)	4049 mg/kg (Rabbit) Dermal LD50 Rabbit 4049 mg/kg (Source: NZ_CCID)	13548 ppm (Rat) 4 h Inhalation LC50 Rat >13548 ppm 4 h (Source: NLM_CIP)

Chemical Name	Other applicable information
1-Propanaminium, N-(carboxymethyl)-N,N-dimethyl-3-[[(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulfonyl]amino]-, inner salt	This material has the potential to be absorbed and remain in the body for long periods of time. Animal studies on organic fluorochemicals indicate effects including liver disturbances, weight loss, loss of appetite, neurological, pancreatic, adrenal, and blood effects. There are no known human effects from anticipated exposure to organic fluorochemicals when used as intended and instructed.
Ethyl alcohol	Ethanol is a developmental toxin by ingestion of moderate amounts.

Chronic toxicity

Carcinogenicity Ethanol has been shown to be carcinogenic in long-term studies only when consumed as alcoholic beverage.

Sensitization No information available.

Developmental Toxicity Ethanol has been shown to be a reproductive toxin only when consumed as an alcoholic beverage.

Target Organ Effects Blood. Central nervous system. Reproductive system. Gastrointestinal tract (GI). Respiratory system. Eyes. Liver. Skin.

Symptoms Vapors may cause drowsiness and dizziness. Irritant.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Ecotoxicity effects Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Product Information

No information available.

Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
n-Propyl alcohol		4480: 96 h Pimephales promelas mg/L LC50 flow-through	3339 - 3977: 48 h Daphnia magna mg/L EC50 Static 3642: 48 h Daphnia magna mg/L EC50
Ethyl alcohol		12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through 100: 96 h Pimephales promelas mg/L LC50 static	9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static

Chronic aquatic toxicity
Product Information
No information available.

Component Information
No information available.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Bioaccumulative potential No information available.

Partition coefficient: n-octanol/water No information available

Chemical Name	log Pow
n-Propyl alcohol	0.25 - 0.34
Ethyl alcohol	-0.32

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

This information is provided to assist users in the correct disposal of working solutions prepared and used to Carestream Health specifications.

Waste from Residues / Unused Products	Dispose of in accordance with local regulations.
Empty containers	If thoroughly cleaned, preferably by rinsing at least three times with small quantities of water, waste product packaging may be consigned for recovery or disposal as non hazardous waste. Whenever possible, minimize waste by using the rinsing water to make up the working solution. The European Waste Catalogue Code is 15 01 02 plastic packaging.
Contaminated packaging	Waste product packaging contaminated by residues of hazardous contents should be consigned for disposal as hazardous waste. In this case, the European Waste Catalogue Code is 15 01 10 packaging containing residues of or contaminated by dangerous substances.
Other information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

The information given below is provided to assist in documentation. It may supplement the information on the package. The package in your possession may carry a different version of the label depending on the date of manufacture. Depending on inner packaging quantities and packaging instructions, it may be subject to specific regulatory exceptions. Please consult the product packaging for further details.

IMDG/IMO

14.1. UN/ID No	UN1986
14.2. Proper Shipping Name	Alcohols, flammable, toxic, n.o.s.
Technical Name	n-Propyl alcohol, Ethyl alcohol
14.3. Hazard class	3
Subsidiary hazard class	6.1
14.4. Packing Group	II
14.5. Marine pollutant	None
14.6. Special Provisions	274
EmS No.	F-E, S-D

ADR/RID

14.1. UN/ID No	UN1986
14.2. Proper Shipping Name	Alcohols, flammable, toxic, n.o.s.
Technical Name	n-Propyl alcohol, Ethyl alcohol
14.3. Hazard class	3
Subsidiary Class	6.1
14.4. Packing Group	II
14.5. Classification Code	FT1
14.6. Special Provisions	274
ADR/RID-Labels	3 + 6.1

ICAO/IATA

14.1. UN/ID No	UN1986
14.2. Proper Shipping Name	Alcohols, flammable, toxic, n.o.s.
Technical Name	n-Propyl alcohol, Ethyl alcohol
14.3. Hazard class	3
Subsidiary hazard class	6.1
14.4. Packing Group	II

14.5. ERG Code	3HP
14.6. Special Provisions	A3

For transportation information, go to: http://ship.carestream.com

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

EINECS/ELINCS	Complies
TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Does not comply
AICS	Complies

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2 Chemical Safety Assessment

No information available

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R11 - Highly flammable
R67 - Vapors may cause drowsiness and dizziness
R41 - Risk of serious damage to eyes

Full text of H-Statements referred to under sections 2 and 3
H225 - Highly flammable liquid and vapor
H318 - Causes serious eye damage

Revision Date	2014-06-18
Revision Note	(M)SDS sections updated

Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.